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BROOKS KUSHMAN P.C. INT'L. AUTOMOTIVE COMPONENTS GROUP 1000 TOWN CENTER TWENTY-SECOND FLOOR SOUTHFIELD, MI 48075			HUSON, MONICA ANNE	
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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JAMES W. HENDRY

Appeal 2009-011456
Application 10/770,932
Technology Center 1700

Before ADRIENE LEPIANE HANLON, CATHERINE Q. TIMM, and
LINDA M. GAUDETTE, *Administrative Patent Judges*.

TIMM, *Administrative Patent Judge*.

DECISION ON APPEAL¹

I. STATEMENT OF CASE

Appellant appeals under 35 U.S.C. § 134 from the Examiner's decision to reject claims 12, 14, and 16 under 35 U.S.C. § 102(b) as anticipated by, or in the alternative, under 35 U.S.C. § 103(a) as obvious

¹ The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, or for filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the "MAIL DATE" (paper delivery mode) or the "NOTIFICATION DATE" (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

over Shah (US 5,558,824; issued Sep. 24, 1996) and to reject claims 13, 17, and 18 under 35 U.S.C. § 103(a) over Shah in view of Guergov (US 6,019,918; issued Feb. 1, 2000). We have jurisdiction under 35 U.S.C. § 6(b).

II. DISCUSSION

We affirm for the reasons expressed by the Examiner in the Answer. We add the following for emphasis only.

Appellant's claims are directed to a gas assisted injection molding system. Appellant contends that Shah fails to teach the *use* of a gas pressure valve as required by claim 12, and further fails to teach the *use* of an infinitely adjustable pressure control valve at all (Br. 7-8). Appellant also contends that Shah does not teach the use of a pressure switch to control the operation of the infinitely adjustable pressure control valve as required by claim 16. Claims 12 and 16, with the key limitations italicized, are reproduced below:

12. A system for forming an injection molded plastic part in a mold comprising:

a mold, said mold having a part-forming mold cavity therein;

sealing members for sealing said mold cavity and preventing gas leakage therefrom;

a first gas source for supplying a gas into the mold cavity to pre-pressure the mold cavity to a first pre-determined value;

an *electrical infinitely pressure controlled valve* for removing said pre-pressured gas from the mold cavity as desired;

a gas control mechanism for maintaining the gas pressure in the mold cavity at a second pre-determined value;

a source for injecting molten plastic material into the mold cavity;

a gas pin assembly for supplying gas into the plastic material in the mold cavity; and

a second gas source for supplying gas to said gas pin assembly.

16. The system as recited in claim 12 further comprising a *pressure switch* for controlling the operation of said valve.

(Emphasis added.)

According to the Specification, the valve used by Appellant is an electrically controlled gas pressure valve (Spec.¶ [0024]). It is “infinitely pressure controlled and can be of any conventional type, such as a Tescom servovalve.” (*Id.*)

The Examiner finds that Shah’s control valve 78 has the structure required by claim 12 (Ans. 3), or that the use of a conventional valve, such as the conventional valve mentioned in Appellant’s Specification, would have been obvious for use as Shah’s control valve 78 (Ans. 3). Shah’s valve is controlled by a pressure sensor and, therefore, is “pressure controlled” as claimed. The valve responds to an electrical signal from a microprocessor and is, therefore, electrical as also claimed. The electrical signal controls the degree of opening of the valve. It is, therefore, reasonable to conclude that Shah’s valve is capable of being infinitely pressure controlled just as other conventional valves such as the Tescom servovalve used by Appellant are capable of being infinitely pressure controlled.

The Examiner has properly focused on the structure required by the claims. A claim to an apparatus or other type of structure must be

differentiated from the prior art in terms of structure rather than function. *See Burr v. Duryee*, 68 U.S. 531, 570 (1863) (“A machine is a concrete thing, consisting of parts, or of certain devices and combination of devices.”); *Corning v. Burden*, 56 U.S. 252, 268 (1853) (“it is well settled that a man cannot have a patent for the function or abstract effect of a machine, but only for the machine which produces it”); *In re Casey*, 370 F.2d 576, 580 (CCPA 1967) (“The manner or method in which such machine is to be utilized is not germane to the issue of patentability of the machine itself”); *In re Michlin*, 256 F.2d 317, 320 (CCPA 1958) (“It is well settled that patentability of apparatus claims must depend upon structural limitations and not upon statements of function.”).

As pointed out by the Examiner, the “use” of the valve amounts to an intended use or functional limitation in a claim directed to structure. In such a situation, where the Examiner establishes a reason to conclude that the structure of the prior art is inherently capable of performing the claimed function, the burden shifts to the applicant to show that the claimed function patently distinguishes the claimed structure from the prior art structure. *See In re Schreiber*, 128 F.3d 1473, 1478 (Fed. Cir. 1997); *In re Hallman*, 655 F.2d 212, 215 (CCPA 1981).

The Examiner has provided reasons for finding that the valve is inherently capable of operating as claimed (Ans. 3-5). These reasons support the Examiner’s finding and have not been addressed by Appellant. Moreover, the Examiner provides an alternative obviousness rationale not addressed by Appellant.

The evidence as a whole supports the Examiner's finding of anticipation and conclusion of obviousness with respect to claim 12.

With respect to claim 16, Appellant contends that Shah does not disclose or teach the use of a pressure switch to control the operation of the infinitely adjustable pressure control valve (Br. 6). However, in light of the fact that the originally filed Specification describes no pressure switch so controlling the infinitely adjustable pressure control valve 40,² but only a pressure switch that initiates the flow of gas to gas pin assembly 30 (see Spec. ¶ [0032]), the Examiner's finding that Shah's control valve 78 operates as a pressure switch (Ans. 3) is reasonable based on the record before us, particularly since Appellant does not address the specific finding of the Examiner (see Br. 6).

Turning to the rejection of claims 13, 17, and 18, the only further argument of any specificity made by Appellant is that there is no teaching, motivation or suggestion to combine Shah and Guergov in a manner which includes all of the features and limitations of claim 18 (Br. 8). However, the Examiner has provided a rationale supporting the combination of the references that is not specifically addressed by Appellant (Ans. 4 and 6).

² In the Brief, Appellant refers to "the feature of a pressure switch 41 . . . for controlling the operation of the valve 40" and indicates that "[t]his is shown in Figures 1-5 and discussed in Paragraph 28" (Br. 4). However, a review of these portions of the originally filed disclosure reveals no description of a pressure switch 41 that controls valve 40, nor any indication by Appellant where support for any amendments later filed existed (*see* Amendment filed October 26, 2004). Nor is there any evidence that the symbol Appellant later identified in Amended Figure 1 as switch 41 was a symbol understood in the art as identifying a pressure switch.

The evidence as a whole supports the Examiner's finding of a reason to combine.

III. CONCLUSION

On the record before us, we sustain the rejections maintained by the Examiner.

IV. DECISION

The decision of the Examiner is affirmed.

V. TIME PERIOD FOR RESPONSE

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED

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BROOKS KUSHMAN P.C.
INTL. AUTOMOTIVE COMPONENTS GROUP
1000 TOWN CENTER
TWENTY-SECOND FLOOR
SOUTHFIELD, MI 48075